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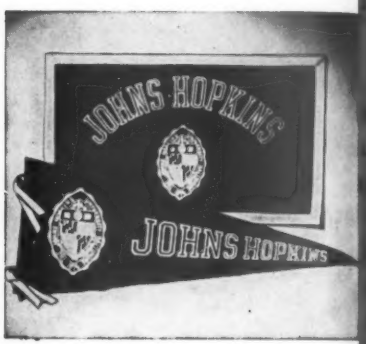


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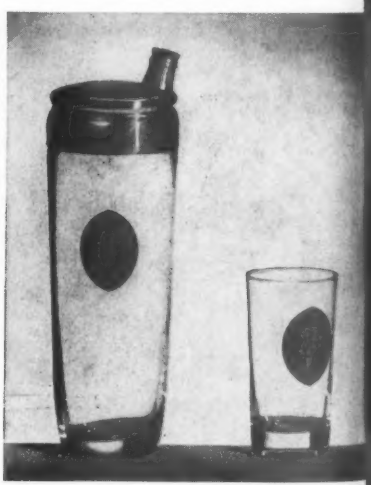

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VOLUME VII November, 1955 NUMBER 2

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Johns Hopkins

**The Cover**

preparations have been un- way for two months, but only two days are left be- the curtain rises; and the stormers, the student dra- organization at Johns kins, are in the wild pro- of tying a thousand loose together before their play ake the boards. This is an ximation of the frenzied . More details of what it to stage a play, complete actors, singers, dancers, tagehands, begin on page 12.

AWING BY AARON SOPHER

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# EDITOR'S NOTES
## *AN INFORMAL REPORT*

PRINTERS' deadlines can be frightful things, as everyone in the magazine or newspaper business can attest. There is no getting around them if a publication is to come out on time. Miss the deadline by a day, by a couple of hours, or even, in the newspaper business, by minutes—and you're lost.

No matter if the inspiration won't come at the appointed time. No matter if you have a headache that stunts your thinking or a bandaged finger that halves your typing speed. The deadline stands, inexorable.

On this magazine, we establish our production schedule a year in advance. On a lazy summer day we sit down with our printer and decide that the contents for next November's issue must be delivered into his hands at 9 a.m. on a certain Tuesday in the fall. It all seems feasible: just make your plans ahead of time, hold to the routine, and all deadlines will be met. Easy. So it seems to us on that lazy summer's day.

But now it *is* the night before that Tuesday morning in the fall. At 9 a.m. tomorrow, the printer will be expecting us. He will be geared to receive the material for this issue, process it, set it in type, and deliver the proofs to us on Thursday. Typographers, proof readers, revisers will be standing by. We must not, cannot, fail them.

Everything is ready but this column. Yet the inspiration will not come. The editor, let it be admitted, has nothing to note this month.

Brooks Atkinson, the drama critic of *The New York Times*, has worked out an admirable way of extricating himself from situations like this. No SUNDAY COLUMN TODAY, reads the headline over his department occasionally—usually, in the spring. No EDITOR'S NOTES THIS MONTH, our own headline should proclaim.

It has not been a dull month, exactly; no excuse there. Nor has today been to blame. It has been a nice day. The temperatures have been right—a bit nippy, causing us to break out our tweed jacket for the first time this fall. But that's fine, from the column-writing standpoint. Fewer trips to the drinking fountain are necessary on a day like this; fewer delays for mopping one's brow, loosening one's tie, rolling up one's sleeves. The lubricant flows smoothly in the mechanism of the typewriter. The keys don't stick, the eraser-dust doesn't clog. Climatically, the conditions today were right. No complaints.

Nor have there been more interruptions than usual. Man stopped in to say hello; we may have tried to prolong the discussion, a little, to delay for a few minutes the facing-up to our responsibility. But not more than a minute was lost; the man had an appointment somewhere and had to dash along.

The phone rang fewer times than it normally does. The mail was heavy, but it contained nothing that couldn't wait. But nothing, no ideas, would come.

We remembered the cure that has always worked before in situations like this. Start pounding the typewriter. Write anything that comes to mind. Set up a terrific clatter; intoxicate yourself with the sound of keys slapping paper. Soon the ideas will form. The great thoughts will well up. The fingers will fairly itch to transmit them to the printed page.

We got busy, first, with the chestnut about all good men coming to the aid. We swung into the quick brown fox. We tore off the preamble to the Constitution of the United States. We summoned the memory of a soliloquy from Hamlet, had little luck with it, and then ripped out the Boy Scout Oath. Then we turned to the Scout Law. Familiar territory, this; our years in the Bat Patrol, Troop 69, had not been for naught.

But by the time we got down to noting that a Scout is "Brave, Clean,

Reverent," we knew we were in real trouble. Never before, in our desperate hours of drumming up ideas, had we had to come this far. (One particularly hard day, we remembered, we had penetrated the Scout Law to midpoint, somewhere in the midst of "Friendly, Courteous, Kind." But then the muse had come. Courteously, kindly.)

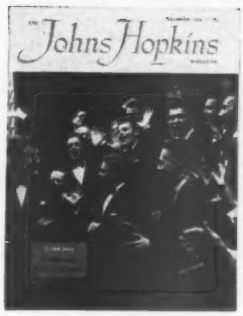
Perhaps, it occurred to us, we could turn our column, just this once, into a department of fun and games. (The effort of recalling the Scout Oath had led to a happy reverie about a game called "Steal the Bacon," played regularly in our Scout troop—the only sport at which we ever excelled.) Puzzles, maybe. Or riddles. We couldn't think of any. We recalled the *answer* to one we had heard just a few weeks before, but that's all. (The answer is TOBACCO, and the riddle is deucedly clever. But we can't remember how it goes.)

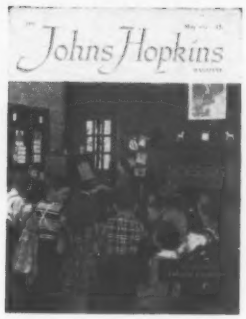
Perhaps we should get a bite to eat, we thought. Food works wonders. A steak, possibly. Full of proteins. If that doesn't work, a movie. Nothing like a movie to relax the old brain. (Naturally, being associated with a university, we'd prefer a good, profound lecture. But there *weren't* any lectures this afternoon, see?)

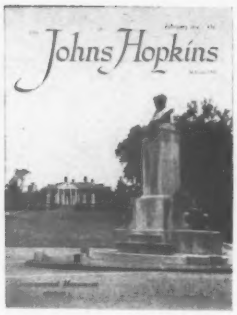
Perhaps we could go out on the sidewalk and interview the man in the street. Unfortunately, as far as we could see, there *was* no man in the street. There was a student leaning from the fourth-story window of an adjacent building, daydreaming; there was also a man over on the lawn, picking up papers with a nail on the end of a stick. Neither gave any indication of wishing to be interviewed. Nor could we think of anything to ask. "Who do you think will win the World Series?" was a possibility, except for the fact that the Dodgers had already won the World Series and people might consider it a silly question.

It's no use, we concluded. We must state the shameful truth.

THE EDITOR
REGRETS TO ANNOUNCE
HE HAS NOTHING
TO NOTE
THIS MONTH



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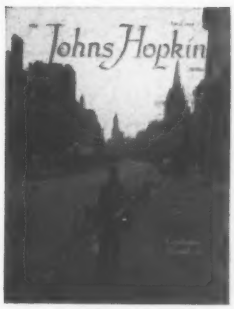
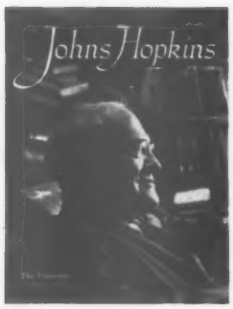
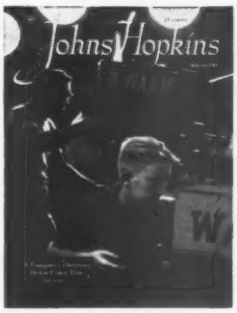
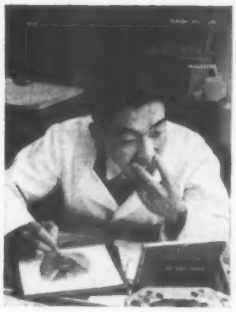





FOR JUST ONE DOLLAR





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# THE MESS IN MASS TRANSPORTATION

## Unsnarling it is imperative if our cities are not to choke to death. Imaginative, daring action—not halfway measures—is necessary

By STEPHEN H. HESS

Two recent newspaper stories drive home the plight of urban mass transportation at mid-century.

"By December," says the *Wall Street Journal*, "more than sixty million vehicles will be on the road, compared with thirty-one million just ten years ago. At least six million new automobiles . . . will pour out of auto factories this year. . . . Already at the start of this year 58,589,863 registered vehicles were enough to form a bumper-to-bumper string of cars two hundred thousand miles long."

And said a dispatch from Springfield, Massachusetts, in the *Providence Evening Bulletin:*

"Hiram L. Bollum, president and a majority stockholder of the Springfield Street Railway Company, stared moodily out of his office window. . . .

" 'I'll tell you why we're going out of business,' he said to a visitor. 'Two reasons: no passengers and high costs. It's as simple as that.' "

The modern city can neither cope with the private automobile nor do without public transit. Its futile attempt to meet the situation has led to more automobiles and less transit service. With the resumption of auto production after World War II, the city turned to the traffic engineer for salvation. But each street widening, each new cloverleaf, every new expressway has acted as a catalyst to increase traffic and more than nullify the new improvement's benefits.

Los Angeles is a city that came of age with the automobile. It has the highest rate of automobile ownership to population of any city in the world, as well as one of the world's most elaborate freeway systems. One morning this year three wrecks during the peak rush hours so tied up traffic that large numbers were more than an hour and a half late to their jobs. Today, auto-dependent Los Angeles is looking for helicopters big enough to lift wrecks from the city's five major freeways.

CONGESTION, traffic snarls, and inadequate transportation are the main products of jamming the automobile into streets unfit to take the load. The by-product is even more frightening. Traffic is a slum-producing influence. It accelerates the flight to the suburbs and leaves behind a ring of blight around the city's core. The blighted area yields little tax revenue and requires disproportionate services. On the other hand, the suburbs, often over the city line and yielding no tax revenue, demand easy access to the central city in the form of costly highway construction.

At the same time, almost every new automobile means at least one lost transit rider. To meet this loss in revenue, most transit companies raise fares and cut service, especially to the suburban areas which are outside the orbit of profitable transit operations. Cuts in routes, cuts in service on remaining routes, and increased fares encourage more people to leave transit and use the automobile. And so the circle of decreased service and lost riders continues.

And yet the street-space efficiency of transit vehicles over automobiles for moving people is enormous. The average private car during rush hours carries 1.5 persons. A transit vehicle can carry as many people as a whole block of automobiles. An obvious answer to the

**The author, a Johns Hopkins political science graduate, has been conducting research for the Mayor's Committee on Mass Transportation in Baltimore, of which Abel Wolman, professor of sanitary engineering at Johns Hopkins, is chairman.**

plight and blight of the city is to restore the equilibrium between auto and transit.

WHY have millions yearly deserted transit for the automobile? The public's answer is, "I'd leave my car at home and use transit *if* fares weren't so high; *if* service weren't so infrequent; *if* the buses weren't so old and smelly; *if* I didn't have to walk three blocks and wait on the corner in the winter; *if* I could get to work as fast as I can in my automobile." The transit industry has not energetically tried to meet these complaints. But in isolated cases transit companies around the country have tried to eliminate one or more of the if's. Here are some of the things that have happened:

### Fares

An odd circumstance has allowed the transit industry to observe a sort of controlled experiment in measuring the relationship between increased fares and loss of patronage. In New Orleans there has not been a fare increase since 1922. For thirty-three years the fare has been seven cents. The explanation is that the New Orleans Public Service, which owns and operates the city's transit, also supplies electric power and gas; increased transit losses have been absorbed by gas and electric profits. Yet between 1945 and 1954 the system lost 32.8 million revenue passengers, a 7.8 per cent decline.

A lowering of rates, it would appear, is not the answer to recapturing lost transit patronage. This is particularly obvious when one considers that transit riders are not deserting to a cheaper means of transportation, but to a more expensive one. For example, for a Massachusetts motorist the variable costs of operating an automobile—gasoline, oil, maintenance, and tires—average 3.54 cents a mile, while the fixed costs—insurance, registration, and depreciation—average $1.55 per day. Thus the Boston man who drives his car to work, parks all day, and drives home in the evening voluntarily chooses to spend $1.55, plus three and a half cents per mile, plus parking fees—instead of around thirty cents on transit.

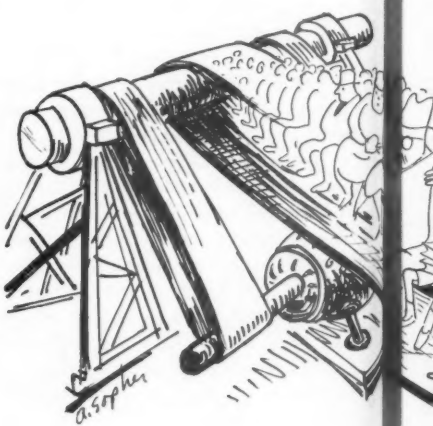
### Convenience

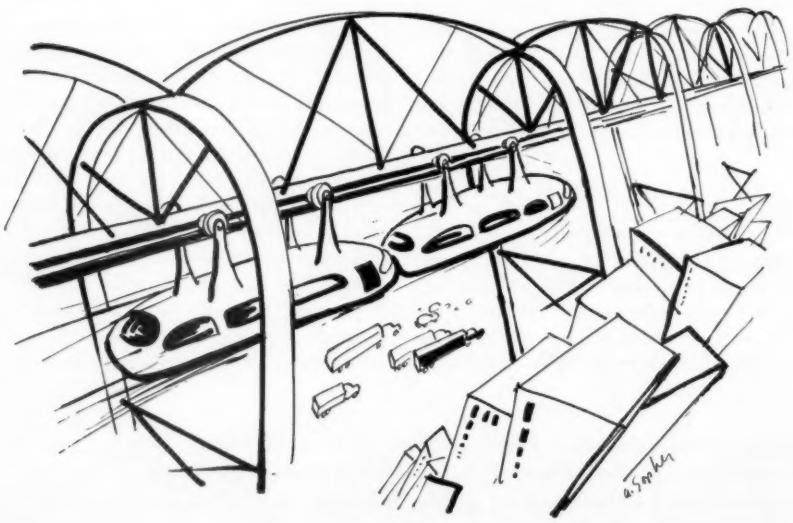
In several instances the transit industry has even tried to compete with the automobile by offering virtually a door-to-door service. In Cincinnati the "Club Flyer" plan operates in this manner: on weekday mornings a bus picks up plan members either in front of their doors or at their street corners. The bus makes only enough stops to pick up a seated load and then travels non-stop to the downtown district. Each rider is guaranteed a seat, and for this service he buys a weekly permit and pays an additional nominal charge of ten cents a ride. (Thus a member who misses a day does not feel that his membership is a total loss; he at least saves the twenty-cent round-trip price.)

But the plan that is a success in Cincinnati has experienced rough sledding in St. Louis. There, the transit company has combed six residential areas without finding more than sixteen rider-prospects in any neighborhood. The search has now turned to downtown employee lists, hoping to find a sufficient number of riders to justify the service.

### Frequency

The St. Louis company tried a novel experiment in 1951 when it doubled service on some lines to see how many potential riders would be attracted by less waiting and more seats. The experiment was well advertised, and it received extensive publicity on radio and television programs and in the newspapers. After assessing the results, the company found that the increased patronage was barely enough to pay for the increased costs of fuel or electric power. The service was discontinued.





### Modernization

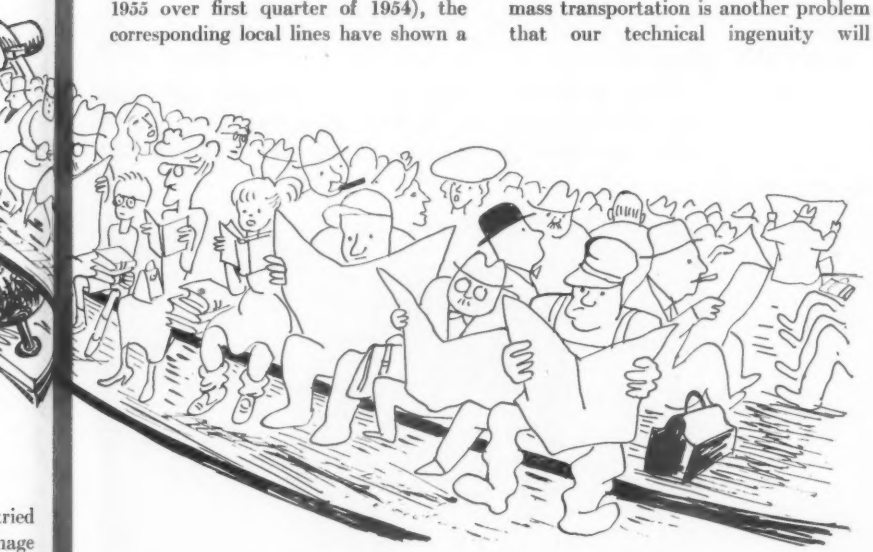
Many transit companies have tried to improve service and regain patronage through modernization programs. More than forty thousand pieces of passenger equipment were delivered to transit companies in the United States from 1946 to 1953. In several cities every vehicle has been bought since the end of World War II. Such a city is Cincinnati. Yet the Cincinnati transit company suffered over a thirty-five per cent decline in riding during its period of modernization.

### Speed

Donald C. Hyde, manager of what is perhaps the best transit system in this country—the Cleveland transit system

—feels that the answer to transit's woes is speed. This year Cleveland opened the first major private-right-of-way rapid-transit line built in the United States in many years. The cost of the thirteen-mile stretch will be in the neighborhood of thirty-two million dollars. But if it had not been for two Cleveland rail tycoons, the Van Sweringen brothers, who spent eighteen million dollars building the line before they succumbed to the Great Depression, Cleveland's new rapid transit would have cost the city eighty million. Few other cities have had such guardian angels or an energetic transit manager capable of selling the city fathers a multi-million-dollar solution.

In St. Louis the privately owned transit company has tried to speed up service with express buses. This service has proved popular. Yet while revenue passengers on express lines have increased 6.5 per cent (first quarter of 1955 over first quarter of 1954), the corresponding local lines have shown a ten per cent decline. Express service has attracted people who already used transit, not new riders. And total system profits continue to skid.



Low fares, convenient service, frequent service, new vehicles, increased speed do not recapture the passengers who have left transit for the automobile since the end of World War II. Yet the man on the street says that these are all he wants. Given these things, he still drives to work, to shops, to recreational facilities.

What is the answer to the riddle? It appears this simple: a variation on the "conspicuous consumption" theme. The Cadillac man is on the top of the pole in our society; he is followed by the Oldsmobile-Buick man and then by the Ford-Chevrolet man. (In Suburbia there is a high place for the station-wagon man and the foreign-car man.) The transit-riding man is at the bottom of the heap. Thorstein Veblen might chuckle if he could see auto-mania, the mid-twentieth century's totem and disease, strangling the industrial city that gave it birth.

What will be done to save the modern city? There is something to be said for doing nothing. Given enough rope—or automobiles—the modern city will simply continue to strangle itself until, in desperation, it will accept radical solutions. Many seem to think that mass transportation is another problem that our technical ingenuity will eventually defeat. As mass production, the internal combustion engine, hybrid crops, nylon, and the traffic light bailed us out of uncomfortable, even dangerous, situations before, so will technology revive the dying patient, the traffic-choked city. But will it?

Would public ownership help? At present there are no supportable data to show the superiority of either public or private ownership for moving people both adequately and economically. In Cleveland a fast, well run system is publicly owned. In St. Louis an imaginative, promotion-minded operation is privately owned. There are numerous examples of both public and private systems that are operating poorly and at a loss.

Many major capital improvements in the future, however, such as the monorail and conveyor-belt systems discussed later in this article, will have to be publicly financed if not publicly operated. Private capital cannot be expected to rush to support such marginal or unprofitable enterprises. And with present-day construction costs, such improvements are fabulously expensive. Yet the costs should not always deter municipalities, especially when one considers that transit's main competitor, the private automobile, is already heavily government-subsidized. Dr. Luther Gulick, city administrator of New York, estimates that his city spends more than a hundred million dollars a year on street and highway construction, maintenance, and other services related directly to traffic, while it collects considerably less than that from taxes on automobiles.

Three inventions that are talked of as playing a vital rôle in the future city transportation picture are the heli-

*Continued on page 20*

DRAWINGS BY AARON SOPHER

# STIMULATOR

## A simple machine demonstrates a theory about sensory nerves

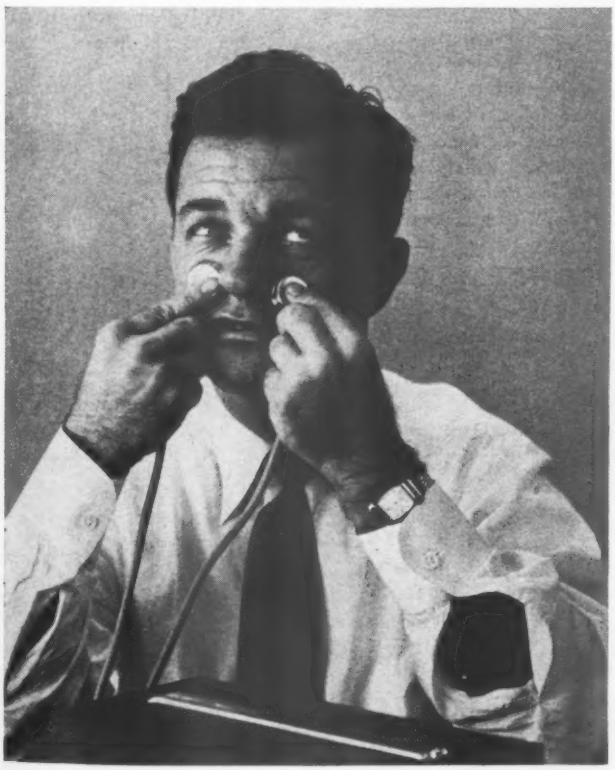
PHOTOGRAPHS BY WERNER WOLFF, BLACK STAR

CARROLL E. HUMPHREY, of the Johns Hopkins Applied Physics Laboratory, makes a hobby of working out simple, inexpensive ways to demonstrate scientific theories so they will come alive in the classroom. Some of his demonstrations, like the one on these pages, achieve rather startling results.

Johannes Müller, a physiologist, propounded the theory that sensory nerves are specific to their purpose; *e.g.*, if one's optic nerve is stimulated in any way (not simply by

Pressing electrodes to her temples as Dr. Humphrey applies current in his stimulus generator, Jean Bryan sees a light although eyes are shut tightly.

light), one will see light; if the auditory nerve is stimulated in any way (not simply by sound), one will hear. To demonstrate Müller's theory, Dr. Humphrey has devised a simple "stimulus generator." With two electrodes, a safe, low-voltage current is applied in the general area of a subject's sensory nerves. Depending on the nerve system being stimulated, the subject sees, hears, or tastes. With electrodes behind the ears, vertigo is produced. When the demonstration is over, the subject feels extraordinarily relaxed.



# INTERPRETING SCIENCE

## A newspaper writer discusses the questions of why the public must

By GWINN OWENS

On the second day of a three-day medical meeting at the Johns Hopkins Hospital not long ago, I approached one of the participating physicians and asked him what he thought of a newspaper account of the first day's proceedings.

"Not bad," he said. "Not bad at all."

"Were there any inaccuracies?" I asked.

"Oh, of course there were inaccuracies," the doctor said. "But then, newspapers are *always* inaccurate."

The doctor's opinion of newspapers, I am afraid, is one to which many persons in scientific and professional fields would subscribe. The manner in which he said it was revealing: the inaccuracy of newspapers in reporting the news of science and medicine is inevitable, it seemed to say; something that everyone recognizes and expects.

I've encountered variations on this generalization many times; even so, each time I hear it anew, it comes to me as a jolt. Unquestionably it calls attention to one of the great problems of this era of mass communication: How can the gulf between the scientist and the lay public be bridged? Or, put another way, how can research that is of significance to the man in the street be explained to the man in the street?

What did the doctor's statement mean? One of two different things. He may have believed that newspapers have always been inaccurate in the past and will probably be inaccurate in the future, even though with better reporters they might be otherwise. Or he may have believed that newspapers *must* be inaccurate because there is simply no way to translate complex, high-level scientific work into language that can be understood by the untrained; that the transition from technical language to popular language will invariably involve the introduction of inaccuracies; that the gulf, in other words, is unbridgeable.

There is no question that the language of science is complex; that the vocabulary of the scientist is composed of words that often mean nothing to the layman—or even, for that matter, to scientists themselves, if they happen to be in another field with a vocabulary all its own. There is no question, either, that the language is complex because the subject is complex; scientists didn't invent the strange words that appear in every scientific paper merely to shroud their work in a fog of mystery or to confuse the typographer. New words were coined because new words were needed to describe hitherto unknown phenomena or tools or substances or

**The author is a reporter for the Baltimore Evening Sun.**

DRAWINGS BY GIL WALKER

# TO THE NON-SCIENTIST

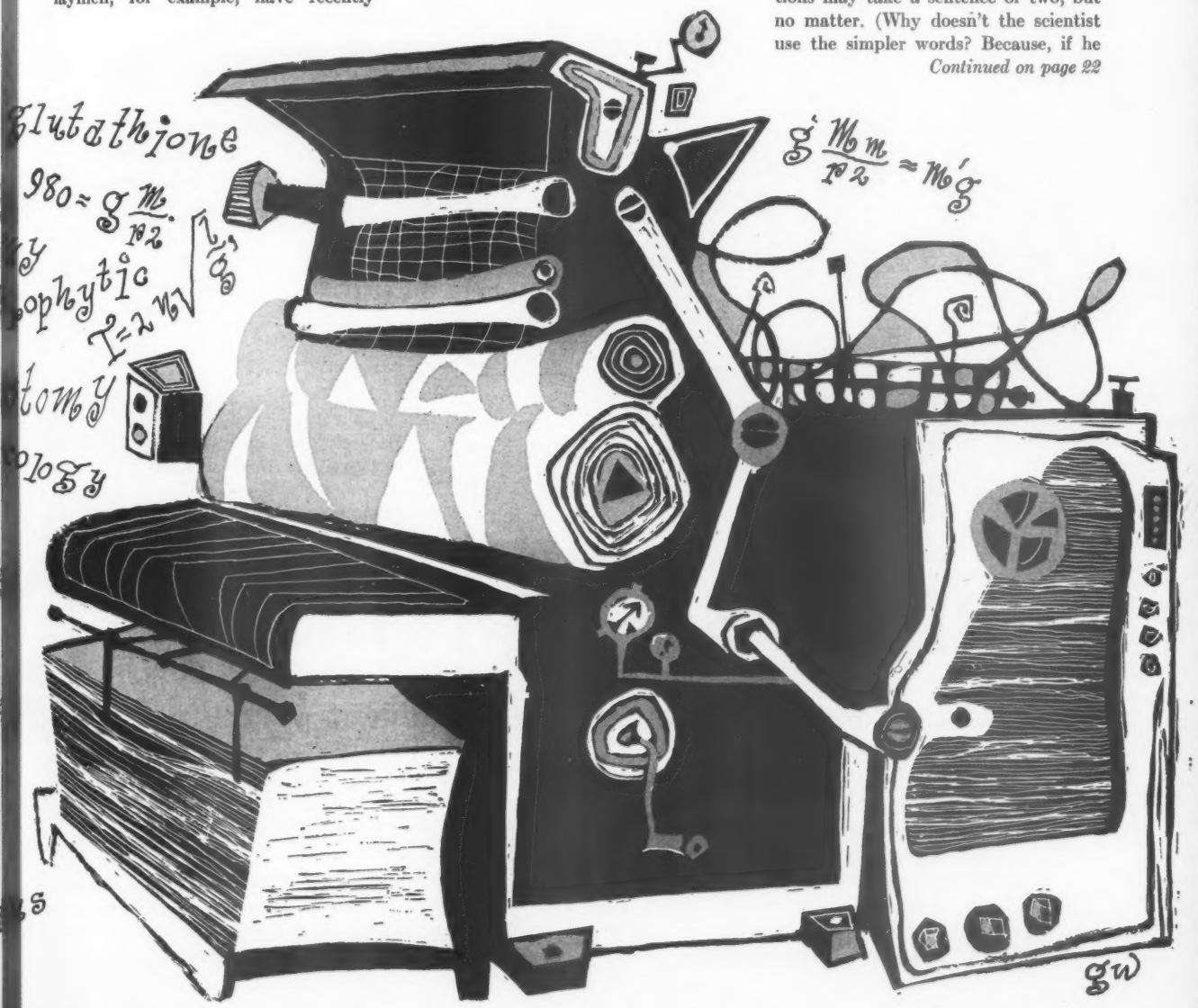
## be kept informed and how scientists and reporters can best do it

concepts, for which the existent vocabulary was unprepared and for which it contained no precise terminology.

Some of these words have found their way into the lay language, and they can be used in newspaper stories without fear that most readers will be unable to recognize them. Most informed laymen, for example, have recently added "ACTH" to their vocabularies, even though they don't attempt to handle the jawbreaker, "adrenocorticotropic hormone," from which the initials are derived; but neither do the scientists, most of the time.

The vast majority of scientific terms, however, would bring forth only blank looks from a layman, and the newspaper writer must find some other way of putting across the meanings that the terms express. Fortunately, he can usually do so. With few exceptions, the terms can be defined in words that are familiar to the lay reader; these definitions may take a sentence or two, but no matter. (Why doesn't the scientist use the simpler words? Because, if he

*Continued on page 22*



Raggedly, since their play has just gone into rehearsal, dancing chorus works out in Barn, home of Hopkins dramatics.

# PLACES, EVERYBODY!

## Student actors and stage crews put on a student-written musical

As the academic year picks up momentum this month, so do the activities of extra-curricular organizations on America's university campuses. One of the busiest, usually, is the student dramatic group. By this time, perhaps, several plays—with or without music—have been submitted by student playwrights. In the faster-moving groups, auditions may already be under way for the season's first show.

Here is a glimpse of the long and arduous process of putting one comedy—written, directed, acted, danced, sung, and staged by the Hopkins Barnstormers—on the boards.

**DRAWINGS FOR THE JOHNS HOPKINS MAGAZINE**
**BY AARON SOPHER**

Auditions for singing and acting parts are held in another hall (*left* and *above*). Play is a musical by student authors.

On a sunny day, scene painters spread out on lawn to work on settings for the play (*above*). The Barn is in the background.

Later, rehearsals move to large auditorium. *Above*, an electrician experiments with lighting as an actress awaits her cue.

Night after night, sections of singing chorus attend practice. Girls for Barnstormer plays are recruited from nearby schools.

## PLACES, EVERYBODY!

*Continued*

In still another spot, orchestra rehearses show tunes. The separate groups in musicals pose big coordination problems.

Nervous activity continues on rehearsal's perimeter. Dancers run through routines; actors and actresses rehearse lines.

Unglamorous though the jobs are, stage-crew posts are manned by students, some of whom may hope to land acting assignments next year.

# A Johns Hopkins Gazette

**AN UNOFFICIAL COMPENDIUM OF FACULTY AND ALUMNI APPOINTMENTS, HONORS, AND ACCOMPLISHMENTS**

## ATOMS FOR PEACE—II

In addition to those listed in these pages last month, Paul G. LeFevre, B.A. '40, G. '40–'41 (Biology), was a member of the United States delegation to the International Conference on Peaceful Uses of Atomic Energy in Geneva.

## THE ALUMNI

Albert Moore Reese, B.A. '92, PH.D. '07 (Zoology), has been awarded honorary membership in the Nature Conservancy for his work in preserving wild life in this country.

Morris A. Soper, B.A., '93, LL.D. '53 (Honorary) has been awarded an honorary LL.D. by Goucher College. He recently retired from his post as a member of the United States Court of Appeals for the Fourth Judicial Circuit.

Arthur L. Bloomfield, B.A. '97, M.D. '11, FAC. '12–'26, has been honored by the *Stanford Medical Bulletin*, which dedicated a special issue to him. Dr. Bloomfield retired last year as head of the department of medicine after twenty-six years of teaching at Stanford.

Frederick H. Verhoeff, M.D. '99, LL.D. '53 (Honorary), has received an honorary SC.D. from the University of Louisville. Dr. Verhoeff is the consulting chief of the Massachusetts Eye and Ear Infirmary of Harvard Medical School.

Guy E. Snavely, B.A. '01, PH.D. '06 (French), has been appointed chancellor of Birmingham-Southern College and will act as president of the college until a new president is named. Dr. Snavely recently retired after seventeen years as executive director of the Association of American Colleges.

William Hennick Martin, B.A. '09, has been appointed director of research and development for the Army.

Thomas Grover Orr, M.D. '10, has been awarded an honorary SC.D. by the University of Missouri, the school at which he did his undergraduate work.

Maurice C. Pincoffs, M.D. '12, FAC. '20–'21, has been named chief of the medical care clinic at the University of Maryland Hospital. Dr. Pincoffs, who is professor and head of the department of preventive medicine, has received the eighth annual Alfred Stengel Memorial Award by the American College of Physicians' Board of Regents.

Noland Mackenzie Canter, M.D. '13, has been awarded an honorary SC.D. by Randolph-Macon College.

David N. Schulman, B.A. '13, M.D. '17, Fellow '21–'22 (Medicine), has been appointed associate clinical professor of medicine at Yale University.

Karl S. Lashley, PH.D. '14 (Zoology), Fellow '14–'17, LL.D. '53 (Honorary), presently director of the Yerkes Laboratories of Primate Biology at Harvard University, has been awarded an honorary SC.D. by the University of Pennsylvania.

Thomas Milton Rivers, M.D. '15, House Staff '15–'16 (Medicine), '16–'18 (Pediatrics), FAC. '17–'22, has retired after thirty-three years' service as vice president and director of the Rockefeller Institute and the Institute's Hospital.

Anna D. Wolf, Graduate Nurse '15, director of the school of nursing and nursing service '40–'55, has been awarded an honorary SC.D. by Goucher College.

Hugh L. Dryden, B.A. '16, M.A. '18, PH.D. '19 (Physics), LL.D. '53 (Honorary), has been elected home secretary of the National Academy of Sciences. Dr. Dryden assumed the secretaryship for four years, beginning last July 1.

Phyllis Greenacre, House Staff '16–'20 (Psychiatry), FAC. '17–'28, was awarded

ROBERT M. MOTTAR, SCOPE

an Elizabeth Blackwell citation for her work as consultant at the Westchester County Department of Public Welfare, Cornell University Medical College, and New York Hospital; also as instructor in psychoanalysis at the New York Psychoanalytic Institute.

Margaret I. Handy, M.D. '16, House Staff '17–'18 (Pediatrics), has been awarded an honorary SC.D. by Goucher College. She is former chief of pediatrics at Delaware Hospital.

Charles H. Rawlins, Jr., PH.D. '16 (Mathematics), has retired as professor emeritus after thirty-three years in the department of mathematics and mechanics at the United States Naval Postgraduate School in Monterey, California.

Stanley Cobb, House Staff '17–'19 (Psychiatry), has been elected president of the American Psychosomatic Society.

Reuben Oppenheimer, B.A. '17, has been appointed by Governor McKeldin as a judge on the Supreme Bench of Baltimore.

H. Dabney Kerr, M.D. '19, House Staff '19–'20 (Surgery), has become professor emeritus of radiology at the State University of Iowa.

Henry E. Niles, B.A. '20, G. '20–'21 (Mathematics), has been elected to the newly created post of executive vice president of the Baltimore Life Insurance Company.

John Gray Douglas, B.A. '21, PH.D. '28 (Geology), has become associate professor of geology at the University of Mississippi.

H. Peirce Brawner, B.A. '22, has been made vice president in charge of sales of the Eastern Greyhound Lines.

Chester S. Keefer, M.D. '22, House Staff '22–'26 (Medicine), FAC. '23–'26, has been appointed to fill the newly created post of director of the Boston University School of Medicine.

Lewis B. Flinn, M.D. '22, House Staff '22–'23 (Medicine), presently a Wilmington, Del., physician and authority on internal medicine, was awarded an honorary SC.D. by the University of Delaware last June.

R. Dorsey Watkins, B.A. '22, PH.D. '25 (Political Science), has been appointed by President Eisenhower as a new Federal judge on the district court which sits in Baltimore.

Paul W. Bachman, B.S. '23, PH.D. '26 (Chemistry), has been made vice president in charge of research and development at the Koppers Company.

Adolph Sylvester Rumreich, DR. P.H. '23, has become health commissioner of Columbiana County, Ohio.

James Clark White, FAC. '23–'24 (Pathology), has been promoted to professor of surgery of the Harvard Medical School at the Massachusetts General Hospital.

Julius Lane Wilson, M.D. '23, has been appointed director of the University of Pennsylvania's Henry Phipps Institute for the Study, Treatment, and Prevention of Tuberculosis.

L. Owens Rea, B.A. '24, PH.D. '28 (Political Economy), has been appointed head of the department of economics at Albright College.

Harold C. Urey, FAC. '24–'28 (Chemistry), has been awarded an honorary degree by the University of California.

Herbert W. Briggs, PH.D. '25, FAC. '25–'26 (Political Science), has been elected editor-in-chief of the *American Journal of International Law*. He is professor of government at Cornell University.

George A. Conner, B.A., '25, has been named vice president in charge of fidelity bonding activities of the Fidelity and Deposit Co. and American Bonding Co.

Jesse Marden IV, Arts '25–'26, has been appointed executive director of the Medical and Chirurgical Faculty of Maryland.

Philip Heller Sachs, B.A. '25, has been appointed by Mayor Thomas D'Alesandro, Jr. to the Board of Municipal and Zoning Appeals of Baltimore.

Chauncey R. Tatum, B.S. '25 (Economics), was awarded a silver anvil for outstanding achievement in public relations at the annual convention of the American Public Relations Association.

John Knight Waters, Arts '25–'27, has been named chief of the American Military Aid Staff in Yugoslavia.

H. D. Kruse, SC.D. '26 (Hygiene), M.D. '32, FAC. '28–'37 (Biochemistry), has been awarded an honorary doctorate of chemistry by Dickinson College.

Murray M. Copeland, M.D. '27, FAC. '37–'47 (Surgery), has received an honorary doctorate of science from his alma mater, Oglethorpe University; he is professor and director of the department of oncology at Georgetown University Medical Center.

T. Robert S. Broughton, PH.D. '28 (Latin), has been elected to membership in the American Philosophical Society.

Hugh R. Leavell, House Staff '28–'29 (Urology), '29–'30 (Medicine), has been elected president of the National Health Council.

James A. Crabtree, M.P.H. '29, DR.P.H. '32, FAC. '31–'32, has been elected secretary-treasurer of the Association of Schools of Public Health.

Vivian Arthur Van Volkenburgh, DR.P.H. '29, FAC. '28–'36 (Epidemiology), has been elected president of the newly formed New York State Academy of Preventive Medicine. Other officers include: vice president, Morton L. Levin, '20–'22 (Arts), C.P.H. '33, DR.P.H. '34, FAC. '35–'36 (Epidemiology); secretary-treasurer, Walter C. Levy, C.P.H. '38, M.P.H. '39; director, Joseph H. Kinnaman, C.P.H. '38, M.P.H. '39; director, Milton Tully, M.P.H. '49.

Oscar Edwin Hubbard, M.D. '30, has been appointed chief of the Mental Health Section of the Alaska Department of Health in Juneau.

James E. Perkins, M.P.H. '31, DR. P.H. '33, has been elected secretary of the National Health Council.

Earl C. Lory, PH.D. '32 (Chemistry), has been appointed chairman of the department of chemistry at Montana State University.

Eugene P. Campbell, M.D. '33, Staff '34–'35 (Medicine), has been appointed deputy chief of the Division of Public Health of the Foreign Operations Administration in Washington.

John H. Dingle, SC.D. '33 (Hygiene), has been elected president of the Armed Forces Epidemiological Board.

Benjamin C. Willis, G. '33–'34 (Education), has been appointed general superintendent of schools of Chicago.

Harry Townsend Muhly, '34–'35 (Arts), PH.D. '40, has been promoted to professor of mathematics and astronomy at the State University of Iowa.

Edward W. Cannon, PH.D. '35 (Mathematics), has been appointed chief of the applied mathematics division of the National Bureau of Standards.

George W. Thorn, FAC. '36–'42 (Medicine), has received the John Phillips Memorial Award given by the American College of Physicians for outstanding contributions to the progress of internal medicine.

Robert L. Vought, M.P.H. '37, has become associate medical director of Bristol Laboratories, Inc., in Syracuse, N. Y.

Elijah Adams, B.A. '38, has been appointed associate professor of pharmacology at New York University College of Medicine.

Edwin Cameron, C.P.H. '38, M.P.H. '39, for the past two years in New Delhi as adviser in education and training to the

WHO regional director for Southeast Asia, has been appointed director of the Division of Preventive Medicine of the Kentucky State Health Department.

Theodore Lidz, House Staff '38–'41 (Psychiatry), FAC. '40–'51 (Psychiatry and Medicine), has been elected secretary-treasurer of the American Psychosomatic Society.

John William Knutson, M.P.H. '39, DR.P.H. '40, chief dental officer of the Public Health Service in Washington, has been assigned to the World Health Organization in Geneva for six months in order to organize a dental program.

Henry B. Strenge, House Staff '40–'41 (Pediatrics), has been appointed the first full-time head of the department of pediatrics at the University of Oklahoma.

Arthur Bancroft French, M.D. '43, has been appointed associate professor of medicine at Wayne University College of Medicine.

Ramon E. de Zubriria, Arts '43–'47, PH.D. '53 (Romance Languages), has been appointed professor of Spanish literature at the Universidad de los Andes in Bogota, Colombia.

Ellis R. Lippincott, M.A. '44, PH.D. '47 (Chemistry), has been appointed professor of chemistry at the University of Maryland.

Leroy D. Vandam, Fellow '45–'47 (Surgery), has been appointed anesthesiologist-in-chief at Peter Bent Brigham Hospital and associate professor of anesthesiology at Harvard.

Joseph H. McLain, PH.D. '46 (Chemistry), has been appointed professor of chemistry and head of the department at Washington College.

William A. Spencer, M.D. '46, House Staff '47–'48 (Pediatrics), has been named by the United States Junior Chamber of Commerce as one of the ten outstanding young men of 1954. He is director of the Southwestern Poliomyelitis Respiratory Center in Houston.

Lavon D. Bechtol, M.D. '47, has been made medical director of the Ethicon Laboratories.

Murray A. Diamond, M.P.H. '47, has been appointed deputy chief and assistant chief for operations of the division of personnel of the United States Public Health Service in Washington.

Thomas Nelson Page, M.P.H. '47, has become chief of medical plans and operations in the Army Surgeon General's office.

Robert Mullen McCune, M.D. '48, Fellow '48–'49 (Surgery), has been appointed assistant professor of public health and preventive medicine at Cornell University Medical College.

James H. Potter, DR. ENG. '48, FAC. '40–'49 (Mechanical Engineering), has been promoted to the post of dean of graduate studies at Stevens Institute of Technology.

Gerald A. Smith, G. '48–'51 (English), has been appointed assistant professor of English at Canisius College.

Charles O. Bruce, M.P.H. '49, has been appointed health director of the Panama Canal Zone government.

F. Charles Froelicher, B.A. '49, has been made headmaster of the Colorado Military Academy in Denver.

William F. Morrison, B.A. '49, has been appointed director of the Church Home and Hospital in Baltimore.

William F. Railing, B.A. '50, has been appointed assistant professor of agri-

cultural economics at South Dakota State College.

Howard S. Strausser, Jr., M.S. '50 (Civil Engineering), has been appointed assistant professor of civil engineering at the University of Washington.

Bert Thoms, PH.D. '50 (Philosophy), has been appointed associate professor of philosophy at Washington and Jefferson College.

Donald Herbert Robinson, M.P.H. '51, has been named director of the Bureau of Medicine Service of the Pittsburgh Health Department.

Allan Ralph Barr, SC.D. '52 (Hygiene), has been appointed assistant professor of entomology at the University of Kansas.

Thomas Smyth, Jr., PH.D. '52 (Biology), has been appointed assistant professor of entomology at Pennsylvania State University.

Vaughn C. Behn, DR. ENG. '53 (Sanitary), has become associate professor of civil engineering at the University of Delaware.

Robert Lisle, M.A. '53, PH.D. '55 (Classics), has been appointed assistant professor of English at Morgan State College.

Robert W. Stanley, PH.D. '53 (Physics), has been promoted to associate professor of physics at Clarkson College of Technology.

Salamon Eskinazi, DR. ENG. '55 (Mechanical), has been appointed associate professor of mechanical engineering at Syracuse University.

Francis Oliver, M.P.H. '55, has been appointed health officer for the Rochester district of the New York State Health Department.

## DEATHS

Louis Sherman Ayres, '27–'28 (McCoy); August 31, 1955.

William Dearborn Ball, G. '94–'95 (Electrical Engineering); January 10, 1955.

Randolph Barton, Jr., B.A. '91; August 27, 1955.

Marion Beal, Graduate Nurse '14; March 7, 1955.

Rose Fairbank (Mrs. Lester H.) Beals, M.D. '00; March 26, 1955.

Henry Kreitzer Benson, G. '03–'04 (Chemistry); September 27, 1954.

Robert Payne Bigelow, PH.D. '92, Fellow '92–'93 (Zoology); September 6, 1955.

Frank Gary Brooks, SC.D. '29 (Hygiene); March 4, 1955.

Richard Nixon Duffy, M.D. '06, House Staff '06–'07 (Medicine); April 14, 1955.

Richard Tilghman Earle, '03–'04 (Medicine); September 9, 1955.

H. Gilbert Fox, McCoy '31–'37; July 31, 1955.

Alexander David Fraser, M.A. '19 (Classical Archaeology); August 1, 1955.

George Patrick Gannon, G. '42–'43 (Hygiene); March 9, 1954.

Eben Ricker Haley, G. '02–'03 (English); February 22, 1955.

Aleck Perkins Harrison, M.D. '07; August 11, 1955.

Joseph Franklin Dix Hoge, '99–'00 (Arts); September 5, 1955.

Katherine S. Ink, Graduate Nurse '00; July 19, 1955.

Ann Stith Iredell, Graduate Nurse '43; March 15, 1955.

Dorothy Caroline Kahn, G. '23–'24 (Psychology); August 26, 1955.

John Albert Key, M.D. '18; August 6, 1955.

Frank Michael Krouse, PH.D. '46 (English); September 1, 1955.

Louis Williams Ladd, M.D. '99; June 28, 1955.

Paul Chouteau Marmion, G. '48–'49,

'52–'53 (Romance Languages); September 1, 1955.

Edith Isaacson (Mrs. John Preston) Maxwell, Medical Art '18–'19; October 14, 1954.

Cletus Edmund McGuigan, B.A. '18, M.D. '22; September 12, 1955.

Hubert Wertz Meckley, G. '30–'31 (Education); May 7, 1955.

Paris Emancipacion Menendez, M.P.H. '29, SC.D. '31 (Hygiene); September 29, 1954.

Virginia N. Wall Meshanko, Graduate Dietitian '46; May 22, 1955.

Louise Crandall (Mrs. Russell L.) Poley, Graduate Dietitian '34; April 26, 1955.

Horatio Paul Scarborough, B.A. '03; September 25, 1950.

William H. Schultz, G. '03–'04, PH.D. '07 (Physiology); July 24, 1955.

Edgar A. Slagle, PH.D. '09 (Chemistry); August 23, 1955.

Harvey Maurice Slater, M.D. '15; June 29, 1955.

Grace P. Smith, Graduate Nurse '03; March 30, 1955.

James John Stass, '50–'52 (Engineering); September 10, 1955.

Alexander McCulley Stevens, M.D. '11; January 31, 1954.

Mary A. Lally (Mrs. A. Winner) Tebbe, Graduate Nurse '22; March 30, 1955.

Cecil Woods Vest, M.D. '08, House Staff '10–'13 (Gynecology), FAC. '26–'49; July 3, 1955.

William Lawrence Wanlass, PH.D. '18, FAC. '18–'19 (Political Science); March 20, 1955.

Campbell Easter Waters, B.A. '95, PH.D. '99 (Chemistry), Fellow '99–'00, FAC. '01–'04; July 30, 1955.

# The Mass Transport Mess

*Continued from page 7*

copter, the monorail, and the conveyor belt. Here are some of their prospects:

### The Helicopter

The helicopter can become a real factor in an urban mass transportation system, but only under very special circumstances. For trips of less than forty miles the helicopter is unable to compete with the railroads, and for trips over 260 miles it is unable to compete with conventional aircraft. It is only for distances between sixty and 140 miles that the helicopter is appreciably superior to both the railroads and the airlines.

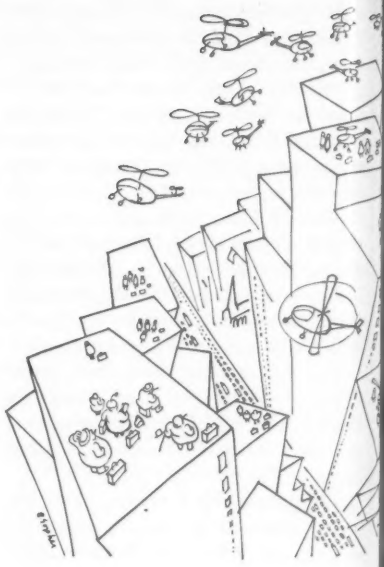
For a city such as New York there is a real possibility that the helicopter will take an important part in metropolitan commuting patterns. But since few cities besides New York have substantial numbers of commuters coming from as far away as sixty miles, there is little hope that the helicopter can be a generally useful means of relieving the strangulation of the cities. More probably we will see a widespread use of helicopters as carriers between cities within two hundred miles of each other and between major airports and in-city points.

### The Monorail

In the monorail system, cars are suspended over the street from a rail that is mounted on girders. The girders are supported at intervals of about sixty feet by transverse bents generally built in the form of a T. The columns are built in the center of the street so as to interfere as little as possible with street traffic.

There are several important advantages in such a system of transportation. The first is speed. A monorail system planned between Long Beach, California, and the San Fernando Valley (a distance of over forty-five miles) is expected to have a maximum speed between stations of sixty miles per hour and an average speed of forty miles per hour. Second, construction costs are far less than for subways. In New York, subway construction is estimated to cost between $10.7 million per mile for above-ground-water work in outlying areas to $13.4 million for below-ground-water work downtown. By comparison, the Los Angeles County monorail is estimated to cost $3.1 million per mile. And right-of-way costs for an overhead-suspended system are well below those for a tunneled system.

But for those who are concerned with making a city a pleasant place in which to live rather than merely an asphalt, brick, and steel machine, there is a serious drawback to the monorail. When one contemplates the idea of a light-excluding, noisy, girdered structure along the length of Charles Street in Baltimore, say, one shudders. Or in New York, now busily demolishing its Third Avenue "el," few would consider its return, even in a modified, streamlined form, as a step forward. As a commuter system, however, possibly using existing railroad rights-of-way, with a feeder system into the downtown area, the monorail has much to recommend it.



### The Conveyor Belt

Conveyor-belt systems have been highly developed in industry. They move vast quantities of materials, from raw ores to fragile packages, over mountains, through factories, into stores. A "moving sidewalk" has been installed in the Houston, Texas, Coliseum to carry fifteen thousand people an hour across a bridge from a parking lot to an auditorium. So far, no such system is in use for large-scale mass transportation, but a conveyor belt with cars mounted on it—dubbed, as was probably inevitable, a "carveyor"—has been designed to replace the present Grand Central-Times Square shuttle subway in New York. Originally it was to have been ready in 1956, but its status is currently in doubt, presumably for political rather than for technical reasons.

The design for the New York shuttle's "carveyor" is relatively simple. A passenger enters a station and steps onto a loading-platform belt which is moving at about half the average walking speed. Moving at the same speed on a parallel conveyor belt are a number of small cars built to hold ten to fifteen persons each. As each car arrives at the loading platform, its doors open automatically; they close again as they

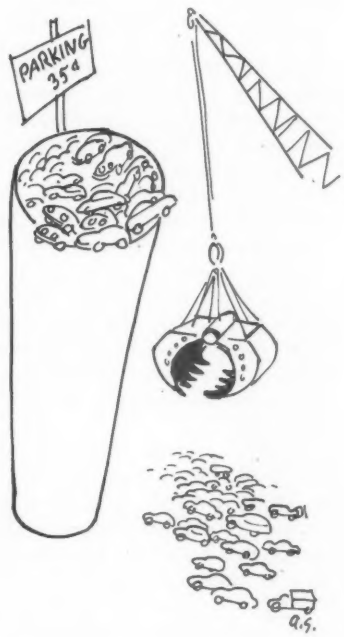
near the platform's end. Once clear of the platform the car passes over a bank of acceleration wheels which gradually step up its speed to fifteen miles per hour. Approaching the next station, the car is slowed by passing over another bank of wheels which decelerate it; at the station the doors automatically open and the passenger steps out onto an unloading platform moving at the same slow speed. The loading, accelerating, decelerating, and unloading cycle is repeated as the car moves endlessly around the conveyor system.

This, potentially, may be the most satisfactory system yet devised for moving urban masses. Bus, streetcar, and subway schedules are based on "average" demands for service, and irritating waits on street corners are common. At present only the automobile operates on individual demand, but then only for private transportation. But the moving-belt system, with its continuous line of cars, offers the magic combination: *public* transportation meeting *individual* demand. Whenever a customer arrives at a station and steps on the loading-platform belt, there is a car available; he needn't wait.

Such a system, moreover, offers the rider speed. The bus, streetcar, and automobile operate on public rights-of-way, the streets. They can only travel at speeds determined by the over-all traffic movement. But the moving belt would not have to contend with traffic; its right-of-way would belong to it alone. Like the monorail, which has exclusive use of an overhead track, or the subway, which has exclusive use of an underground tube, the moving belt can maintain its speed and is limited only by its own capacity.

And such a system offers the rider cheap transportation. The most expensive form of transportation for public carriers is surface operations. The New York City transit authority reports that the cost of operating surface lines for the nine months that ended last March 31 was nearly ninety cents per revenue-vehicle-mile. In the same period the authority spent a fraction over seventy cents per revenue-car-mile to operate its rapid transit (subway) lines. The operation and maintenance costs of running a conveyor belt would be even less. An important factor in this is the smaller labor force that would be necessary. Estimates made for the Times Square shuttle project indicate that the "carveyor's" operating costs would be only half as great as the cost of running the present subway.

The routes of such systems would depend, of course, on the needs of each city. In Baltimore, as in other old cities, traffic counts show that only a small number of streets carry the major load of vehicles; for various reasons most streets are worthless for through-traffic routes. Conveyor-belt systems, if built on such streets, would cause only minor disruptions of existing traffic patterns.




THE ideal mass-transportation system for the modern city, then, probably consists of a ring of parking areas around the central core, with fast feeder lines—bus or monorail—tying them to the outlying suburbs. At parking-area terminals riders would transfer to conveyor belts which would bring them quickly and cheaply to their downtown destinations. The vital core of a city thus relieved of congestion would again have its place in the sun.

But there is no easy answer to the paramount question of how to bring about this ideal; how to arrest the present trend of strangulation-by-automobile. The need can be simply stated: transit use must be made more attractive than automobile use, or, in some instances, the margin of convenience between transit and auto must be widened.

But how? It has been suggested that this might be an evolutionary process; that time will take care of the problem; that the city is fast reaching the saturation point where it will be far more trouble to use an automobile than the effort can possibly be worth. But what is also needed is the reorientation of both public and government thinking. We must abandon the false premise that the automobile is the only acceptable means of transportation and that all possible steps must be taken to increase its efficiency.

Already, strong voices are being raised in advocacy of stern measures to cope with the problem. The voices come from many quarters, some of which rarely find themselves in agreement on transit matters. Several weeks ago Michael J. Quill, president of the Transport Workers Union, which had won new wage increases in New York, said that all private-automobile traffic in Manhattan must be banned if the city's transit system is to meet its rising labor costs without ruinously raising fares. More people, he said, would then have to ride transit; under present traffic conditions, he warned, buses will not be able to move through the streets if action is not taken before the Christmas rush. New York's traffic commissioner greeted the suggestion coolly, but another city's traffic director, Henry A. Barnes of Baltimore, was more inclined to accept the Quill view, with reservations. Certain people—physicians, for instance—must drive their own cars in the city, he said; but for the nonessential vehicle "the city may someday say that you can't drive your car south of Centre Street or north of Pratt [two streets bounding Baltimore's downtown district] unless you have a special and officially approved reason." If that were the case, he said, off-street parking facilities could be planned for those who really need them, "rather than the person who simply prefers his car to a bus."

Other measures, not as drastic, would completely ban curb-parking in downtown areas (such a ban has already worked well in Philadelphia) and raise rates in downtown garages to a point that would discourage people from driving their cars to work. The solutions are severe, but no more so than the problem itself. To save a dying patient, extreme measures are often called for—and this patient is in very bad shape, indeed.

## Interpreting Science

*Continued from page 11*

did, it would take him forever to express himself precisely. The same necessity for conciseness, or for expressing subtle shadings of meaning, is the mother of most inventions in the language, not just of those in scientific parlance.)

Thus ACTH is defined in a medical dictionary as a "hormone of the anterior lobe of the pituitary which influences the development, growth, and activity of the adrenal cortex." Define or elaborate on the unfamiliar terms in the definition, and the newspaperman should be able to come up with a description of ACTH that any reasonably intelligent reader can understand.

Granting that a capable reporter is on the job, there is only one field of knowledge that is completely unreportable, so far as I know. This is the field of pure mathematics. Dealing as it does with concepts that are completely original and completely abstract, it is by nature not translatable.

HAVING freed only the mathematician from the prying of the newsman, we can look at the rest of the scientific world and weigh some of the fundamental problems of popular reporting as they are encountered by the scientist and the reporter.

First, the audience. The newspaper and magazine-reading public is composed of some people who want to be informed, often with a specific educational goal in mind, but more numerous are the readers who want to be informed *and* entertained. A story of a new research project in biophysics will probably be read by students of biophysics and perhaps by other biophysicists (although they have probably encountered the report, already, in a scientific journal), but not by the general public—unless the story is *interesting*. We must be realistic and face the fact that the layman wants to know what is going on in the world of science if it doesn't bore him. We can assume it won't bore him if it is intrinsically spectacular or novel, or if it has personal significance to him. It is fairly certain, for example, that almost everyone read the stories about the proposed man-made earth satellite, the Salk polio

vaccine, and the meteorological investigations of the hurricanes that have plagued the East Coast in recent months.

OF course, what the layman *wants* to know is only part of the communications problem. There is also the question of what he has the *right* to know.

Most scientists and medical men accept the obligation to review their work in the professional journals. On the other hand, few of them are conscious of an obligation to tell the general public. Some of them do encourage popular reporting of their achievements; others carefully avoid it. The extent to which the scientist is obliged to keep the public informed has never been settled.

My own feeling—shared by most reporters—is that since the goings-on in quiet laboratories often foreshadow developments that may someday change the layman's life, the layman has a right to know about them.

When the research is completely private, this "right" is a moral one, at best. Such research—conducted in a private institution, perhaps with the sponsorship of a private individual or corporation—cannot legally be forced into public print. On the other hand, much of the medical and scientific work being conducted today is made possible through public contributions, either directly (as in the case of the Heart Association, the American Cancer Society, or the National Foundation for Infantile Paralysis) or indirectly (as in the case of government-sponsored research). In either of these cases, there is no question that there is a strong obligation to keep the public informed. There is a strong moral obligation; perhaps there is a legal obligation as well, though morality, not legality, is the important concern.

WHILE the long-run interests of both public and scientists lie in the spreading of information about what is going on, newspapers and magazines must recognize important rights of the scientists, as well.

The quest for knowledge, they must recognize, is usually long and painful. "Results," whether they involve the discovery of basic truths or practical achievements, come slowly and piecemeal. The public often becomes impatient; editors and reporters, sensing this, may become impatient, too. The reporter may be tempted to demand results that the scientist cannot give.

But the conscientious reporter must be aware that such pressures should never be allowed to influence research. The "right" of the public to know does not carry with it the right to browbeat the scientist into providing information when he is honestly convinced that a delay in reporting his findings is desirable.

Yet the public impatience is understandable in a prosperous, fast-developing land where "results" have become part of society's fabric. Here again the reporter and the scientist can coöperate in availing themselves of a hitherto unnoticed opportunity. This is the drama of failure; the excitement of the truth that cannot be found. Popular articles can do much to alter the public attitude toward failure.

IN the July issue of the *Southern Medical Journal*, an editorial appeared on the "debacle" of the publicizing of the poliomyelitis vaccine last spring. Citing the unprecedented, televised, laymen-controlled announcement, the editor asked:

"May this be the first example of the effect when research and its disposition are no longer the property of the investigator, to be publicized when the time is proper? May it mean that the research is the property of those who supply the funds? Here lie dangers to medical research—that the organizer who raises funds or the political body which disburses tax funds must justify their existence by 'producing,' and as in the auto factory hope to see research come off the line like cars."

I do not defend the National Foundation for Infantile Paralysis or the reporters who, almost to a man, misinterpreted the reports of the trial use of the Salk vaccine. Nor would I disagree with the editorial writer on the right of the investigator to control his own investigations. But I believe the

*Southern Medical Journal* misses an important point concerning the value of popular reporting: the urgent need for popular understanding and support if large-scale, non-government research is to survive in this country.

I speak of the "new look" in philanthropy in the United States. Once a large part of the financial support for research came from a relative handful of wealthy individuals. But no more. In its place is support from vast numbers of small contributors whose gifts are in the form of nickels, dimes, and low-denomination bills. In this new form of fund-raising activity—on the success of which an enormous amount of research depends—the polio foundation has been eminently effective. And to what is its success due? Mainly to a tremendous amount of popular reporting. If the scientists had not provided information for popular consumption, it is doubtful that popular support would have been so overwhelming. As it is, popular articles on research brought public support, which in turn has brought funds and made extensive research possible.

If I have established some kind of case for the public's right to know, we can move ahead to the crux of this discussion: How do we bridge the gap between the scientist and the interested public? How do we dispel the assumption that "newspapers are always inaccurate"?

The hope of bettering this situation rests about evenly on the scientist and the reporter. If it is mutually agreed that there is to be a news story, the scientist must accept the reporter without fear of publicity or without prejudice against it. The success of the venture depends on a thorough understanding of each other's function in the job.

The scientist's part is to make sure that the reporter understands the project thoroughly. This may mean simplifying technical terms and descriptions of procedures. Chances are, the reporter knows something about the work, for essentially he is a middle man. He knows less than the professional, but more than his potential reader.

This usually works out well, for were the reporter as well versed in the subject as the research man, he might fall into the error of using terms familiar to himself but unknown to the layman. A good reporter must know how much a reasonable proportion of his readers will understand. The scientist, who lives with his subject, is often unable to gauge the point at which he is beyond the layman's depth.

In the process, the professional man may object that the reporter is using terms that seem "imprecise" or even inaccurate. Often, I feel, the scientist is oversensitive about this. For example, I have been denied the use of the adjective "vicious" in describing cancer. I have been asked by a psychiatrist to change "abnormal" to "disturbed." In the latter case I protested because "disturbed" does not mean to the layman what it means to the psychiatrist.

Sometimes the reporter fails to find a story where he sought it but stumbles into something better. As a result, the editor and the reporter sometimes find themselves in a dilemma. Imagine the following situation:

At a scientific meeting Reporter Jones hears an informal talk by Dr. Smith about a new kind of lung-operation technique.

"This technique," says Dr. Smith, "considerably reduces the risk in certain lung operations."

"Do you mean," asks a member of the audience, "that it is, for example, about as easy to perform as a tonsillectomy?"

"That's not a very good comparison," says the doctor. "The tonsillectomy is *not* an easy operation. As a matter of fact, the dangers in the tonsillectomy are too often minimized. It makes me furious how often tonsillectomies are performed when they are simply not necessary. About fifty per cent of the time they would be just as well not performed. As it is, children are continually being subjected to unnecessary danger. But I'm getting off my subject; now as I was saying, this lung operation. . ."

Next day, Dr. Smith opens his paper to see the story of his operative technique. And what does he see?

DR. SMITH HITS
TONSILLECTOMIES

Says 50 Per Cent
Are Unnecessary
And Dangerous

Dr. Smith is dumfounded. There is no mention of his lung operations, while his offhand remarks about tonsillectomies have been spread far and wide.

What happened is easy to understand. The lung-operation angle turned out to be unworthy of a news story. The tonsil-operation remarks were not merely interesting; they were startling and of importance to every parent.

Did the reporter act unethically in this case? I expect arguments, but I would say that he did not. If the surgeon feels strongly about his views on tonsillectomies and is sure of his ground, he should make them known. If he is not sure of his ground, he should not air his peeves with anyone. In either case, the story might bring about a re-examination of the tonsillectomy question.

I mentioned earlier that reporters and scientists are both faced with the public's insistence that research must bring "results" or must "lead up to something." Yet science accepts, and good reporters know, that the goal of much of the best research is truth—

# At Johns Hopkins

## FROM OCTOBER 20 TO NOVEMBER 30

### HOLIDAYS

CLASS DAY—Courses in the Homewood Schools will be suspended at 1 p.m. in order to permit the class activities to be conducted without competition from the more serious things in life (Friday, Nov. 18).

THANKSGIVING—The Homewood Schools including McCoy College will recess for the holiday from Thursday, Nov. 24 through Sunday, Nov. 27. The School of Hygiene and Public Health will end its first quarter and begin Thanksgiving recess on Wednesday, Nov. 23. The second quarter will begin on Monday, Nov. 28. The School of Advanced International Studies will suspend classes on Thursday, Nov. 24.

### SPECIAL EVENTS

UNIVERSITY LECTURE—George Boas, professor of philosophy, will speak on "Philosophy and Common Sense" in a lecture that is open to the public without charge (Wednesday, Nov. 2 at 4:15 p.m. in Room 1, Remsen Hall).

AMERICAN COLLEGE OF PHYSICIANS—An all-day meeting of the Maryland-District of Columbia region. (Saturday, Nov. 19 in Hurd Hall, starting at 9 a.m.)

### VARSITY SPORTS

NOTE.—No admission fee is charged for Johns Hopkins home athletic events, but an admission card is required. Persons who wish to attend games during the coming University year may obtain a card without charge by sending a stamped, self-addressed envelope to the Department of Physical Education, the Johns Hopkins University, Baltimore 18, Md. Alumni of the University should address their requests for admission cards to the Alumni Relations Office, the Johns Hopkins University, Baltimore 18, Md.

FOOTBALL—Johns Hopkins vs. RANDOLPH-MACON on Saturday, Oct. 22 (Homewood Field at 2 p.m.); DREXEL on Saturday, Oct. 29 (away); SWARTHMORE on Saturday, Nov. 5 (Homewood Field at 2 p.m.); DICKINSON on Saturday, Nov. 12 (away); WESTERN MARYLAND on Saturday, Nov. 19 (Homewood Field at 2 p.m.).

SOCCER—Johns Hopkins vs. FRANKLIN AND MARSHALL on Saturday, Oct. 22 (Homewood at 12 noon); DREXEL on Saturday, Oct. 29 (away); LOYOLA on Wednesday, Nov. 2 (Homewood at 3 p.m.); WASHINGTON COLLEGE on Saturday, Nov. 5 (away); MARYLAND on Tuesday, Nov. 8 (away); DELAWARE on Saturday, Nov. 12 (Homewood at 2 p.m.); WESTERN MARYLAND on Saturday, Nov. 19 (Homewood at 12 noon).

CROSS COUNTRY—Johns Hopkins vs. CATHOLIC on Saturday, Oct. 22 (Homewood at 2 p.m.); DELAWARE on Friday, Oct. 28 (away); FRANKLIN AND MARSHALL on Wednesday, Nov. 2 (Homewood at 4 p.m.); SWARTHMORE on Saturday, Nov. 5 (Homewood at 2 p.m.); WASHINGTON on Saturday, Nov. 12 (Homewood at 2 p.m.); MASON-DIXON CHAMPIONSHIPS on Saturday, Nov. 19 (away).

### TELEVISION

TOMORROW'S CAREERS—The Johns Hopkins University's television program: Oct. 22—Pharmacy; Oct. 29—Public Relations; Nov. 5—Dermatology; Nov. 12—Theatre; Nov. 19—Foreign Service; Nov. 26—Airline Service (Saturdays at 10 p.m., Eastern Time, over stations of the American Broadcasting Company network; in some cities the program is seen via delayed telecast, in which case readers should consult their local newspaper listings for day and time).

### ALUMNI MEETINGS

OHIO VALLEY ALUMNI ASSOCIATION—An evening meeting (Thursday, Nov. 3 at the University Club in Cincinnati; details will be announced).

CLEVELAND ALUMNI ASSOCIATION—a cocktail hour meeting (Sunday Nov. 13; details will be announced.)

MEDICAL ALUMNI—A Johns Hopkins dinner will be held in conjunction with the conference of the Southern Medical Association in Houston (Tuesday, Nov. 15 at the Shamrock Hotel).

CHICAGO ALUMNI ASSOCIATION—At an evening meeting, Dr. George Boas, professor of philosophy, will speak (Thursday, Nov. 17; time and place will be announced).

MECHANICAL ENGINEERS—In conjunction with the meetings of the American Society of Mechanical Engineers in Chicago, a Hopkins Hour is being planned (5 to 7 p.m. on Thursday, Nov. 17; place will be announced).

### DRAMA

THE TWO GENTLEMEN OF VERONA—The Johns Hopkins Playshop will present the Shakespearean play for the first time in many years. (Friday and Saturday, Nov. 18 and 19 at 8:30 p.m., and at 2:30 p.m. on Saturday, in Shriver Hall. All tickets are $1.20; further information may be obtained by telephoning the office of the Playshop, the Johns Hopkins University.)

ON BEING A DRAMA CRITIC—A lecture by Louis Kronenberger, sponsored by the Johns Hopkins Playshop. (Sunday, Oct. 23 at 8:30 p.m. in Shriver Hall. Admission, 60 cents.)

## Interpreting Science

*Continued from page 23*

regardless of whether the truth, when discovered, can be practically applied. The reporter should encourage, not discourage with false practical or clinical claims, the sanctity—and the sheer necessity—of pure research. Such encouragement may, on occasion, cost him a story. For research without a practical goal sometimes does not measure up to the needs of a news story.

On the other hand, the reporter sometimes finds a scientist refusing to admit practical goals even when they exist. Many times have I heard a medical man say, "I wouldn't want to speculate on the clinical possiblities." Not always, I am sure, has the researcher good grounds for declining to discuss the applications of his work.

Recently a medical scientist who presented a paper publicly found himself in for a lot of lay criticism because he neglected—for what reason I don't know—to speculate on the potentialities of his research. His project involved the killing of large numbers of animals in a manner that might have seemed brutal and wanton to an outsider. Actually, I happen to know, his findings may be a great boon to humanity and result in the saving of human lives. But by not admitting this (perhaps it was because of modesty), he had to bear up under some unkind publicity.

THERE is a final point to be made on the whole question of popular reporting. We live in a country that has thrived in an atmosphere of free communication. Our governments at all levels are forbidden to act in secrecy. Our corporations turn out press releases faster than the newspapers can digest them. Both our public and our private institutions seem to have benefited from this scrutiny. I know of no instance where the truth has hurt sincere men. I do not believe that telling the truth to the public can hurt the scientist, and it will certainly create the understanding and awareness of his work that will, in the long run, help him. But the public must know the truth and not distortions of it. There is where the reporter's responsibility lies.

# NEXT MONTH

* In December, The Johns Hopkins Magazine will present the second in its series of photographic essays on diagnosis of illness—a series whose first article, on the basic physical examination, appeared in these pages in October. Next month readers will visit the clinical laboratories where analyses are made to aid the physician in his diagnosis of a patient's ills. The third instalment, on x-ray, will be published in a subsequent issue of the magazine.

* Also coming in December: articles on archaeology and a group of scholars from Iron Curtain countries who have taken refuge in the West—and, in addition, a special photographic feature for Christmas.

## THE JOHNS HOPKINS MAGAZINE

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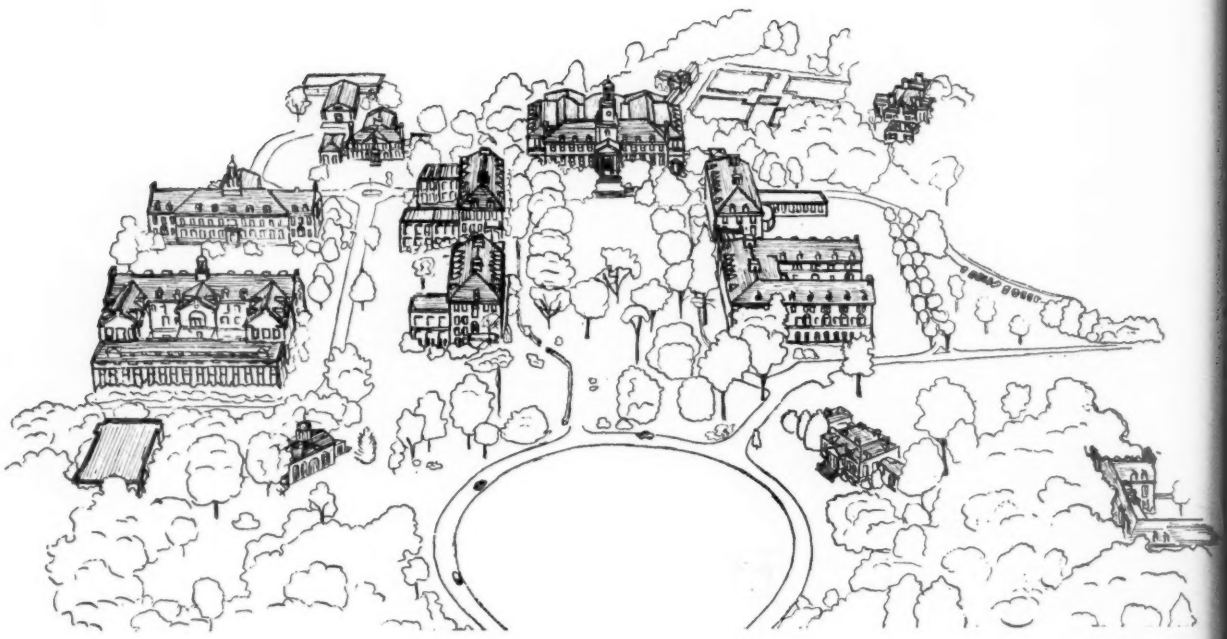

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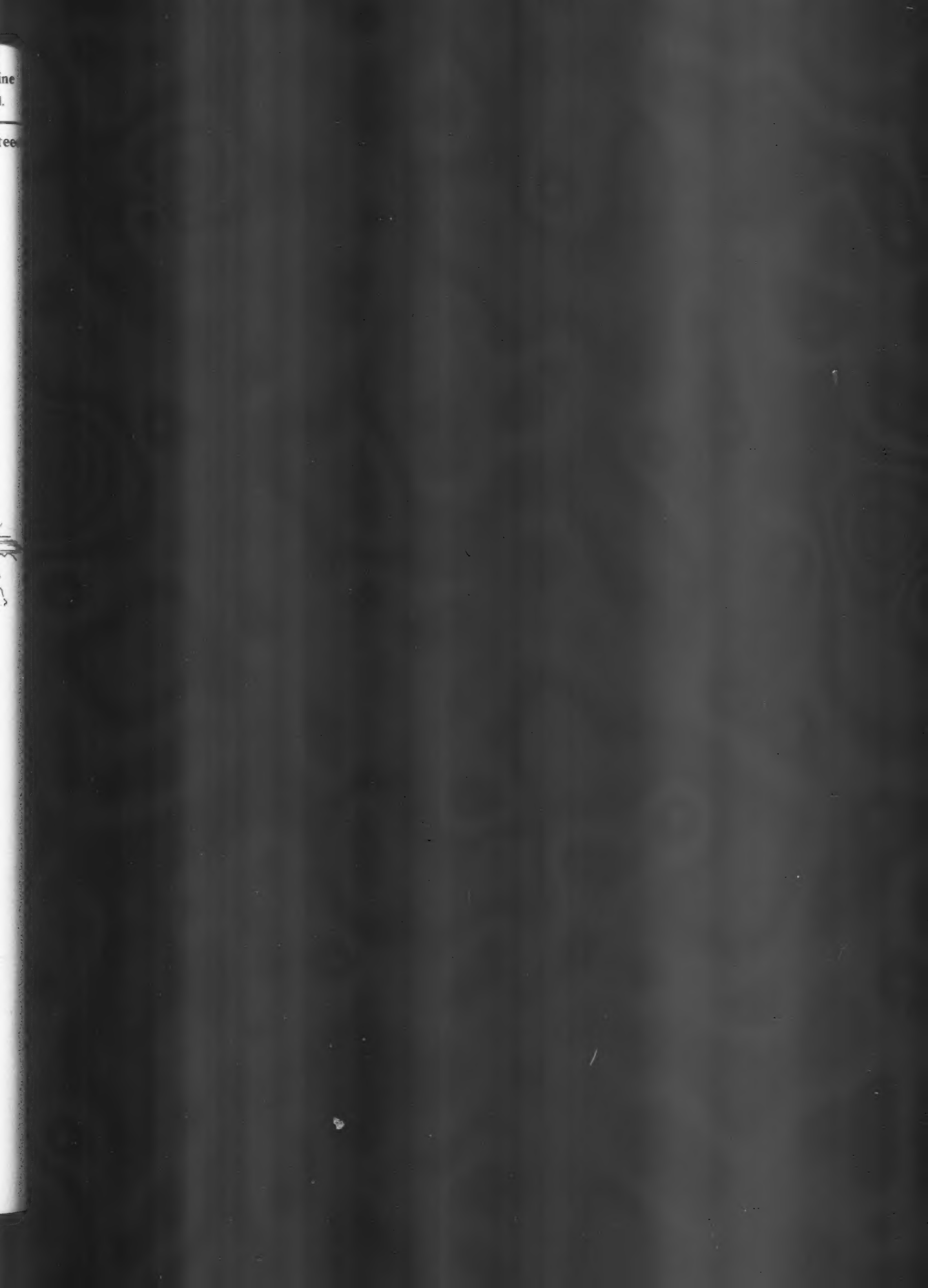
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